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## CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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Economic planning in Hungary since the end of the war may be summarized as follows:

1. The Three-Year Plan, which was carried out between 1 August 1947 and 31 December 1949, was designed to rebuild the country after the devastations of the war. This plan was completed successfully; it had been prepared entirely by Hungarian experts.
2. The Five-Year Plan, with the exception of certain points was also prepared by Hungarian experts. Its purpose was, essentially, the integrated development of all branches of the national economy.
  - a. After the beginning of the Korean war and the intensification of the cold war, however, the situation underwent a radical change. At that time, in an effort to enhance war production, the USSR interfered radically in the management of Hungary's national economy. This intervention manifested itself in the subsequent increase of the Five-Year Plan, which was announced in 1951.
  - b. With a view to meeting Soviet demands, Hungary was compelled to develop to the maximum its output of bauxite, alumina, aluminum, iron, and steel. As early as 1951, and increasingly in 1952, the results of this Soviet intervention manifested themselves in considerable delays in production, and the augmented Five-Year Plan could not be fulfilled.
  - c. The result of the intervention into metallurgy and the aluminum industry was that coal and electric power production could not keep up with Soviet requirements. The failure of the Five-Year Plan is basically due to the fact that coal and power output is insufficient. As a matter of fact the situation is so acute that the National Planning Office cannot prepare plans for a single year, or even for

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a few months, but must constantly modify the plan figures as a result of the shortages in coal and electric power.

3. For all practical purposes, the Five-Year Plan -- that is, economic planning on a national scale -- has been scrapped. The enterprises are operating only on the basis of temporary instructions. To remedy this situation, feverish preparations are being made with a view to opening up new sources of energy.

4. Aluminum Industry.

a. Bauxite Mining.

Year	Bauxite Production in Tons
1938	353,985
1942	974,477
1943	997,507
1944	731,480
1945	47,165
1946	74,125
1949	560,000
1952	1,250,000

b. Alumina Production.

- 1.) The largest part of the bauxite mined is used for the production of alumina. Approximately 5-6 percent of the bauxite are used for the production of bauxite cement. The latter product has been employed successfully in the building industry, because it settles faster than Portland cement.
- 2.) Currently, the following three factories produce alumina in Hungary: Magyaróvár, 15,000 tons; Ajka, 20,000 tons; and Almásfüzitő, 60,000 tons.
- 3.) Bauxite mining exceeds Hungarian requirements. Before the war, 90 percent of the bauxite was exported to Germany. Exports during recent years are shown in the following table (in tons):

Year	Bauxite Consumption in Hungary	Bauxite Exports	Alumina Production
1938	34,040	319,945	3,200
1942	48,509	925,968	18,500
1943	53,087	944,420	20,868
1944	45,770	685,710	20,500
1945	7,221	39,944	2,100
1946	11,350	62,775	4,500
1947	45,000	281,041	12,000
1949	77,000	483,000	34,000
1952	260,000	990,000	85,000

Previously, approximately 7 percent of the bauxite mined stayed in Hungary. This ratio has, however, changed as a result of the establishment of the new alumina works at Almásfüzitő. Thus, in 1952, 19 percent of the bauxite remained in Hungary.

c. Aluminum Manufacture.

- 1.) Hungary has three aluminum smelting establishments (annual capacity appended): at Felsőgalla, 4,000 tons; at the Mátyás Rákosi Works, Csepel, 4,500 tons; and at Ajka, 10,000 tons. Due to the enlargement of the power plant which serves the Ajka smelter, the capacity of the latter was recently increased by 10,000 tons per year.

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- 2.) Currently, a fourth aluminum smelter is under construction at Inota, near the new electric power plant which is already in operation. The new smelter will have an annual capacity of approximately 30,000 tons. As a result, Hungary's aluminum production will be doubled when the new smelter is placed in operation.
- 3.) The following table shows the development of Hungary's aluminum production since 1938:

Hungary's Aluminum Production

Year	Production in Tons
1938	1,516
1943	8,904
1945	1,021
1946	2,147
1947	6,300
1949	16,824
1952	25,157

- This extraordinary development can be explained only by Soviet demands for aluminum.
- 4.) It may be added that Hungarian aluminum cannot compete in price with world production. This is due to the fact that the recent boost of production figures was possible only in a Communist state, where the enterprises and products are not always governed by the requirements of economy in operations. For example, the transportation costs of Hungarian bauxite to the USSR amount to four times the cost of mining and to 1.4 times the world price for bauxite. Hungarian bauxite could compete in the Western markets only if the cost of electric power were reduced to 8 fillers per kilowatt-hour. Currently, however, this item fluctuates between 16 and 31 fillers per kilowatt-hour.

#### 5. Ferrous Metallurgy.

Since a great deal of detailed information has been published on Hungary's ferrous metallurgy, the following table includes only data which have bearing on the evaluation of electric power consumption:

Year	Iron Production in Tons	Steel Production in Tons
1938	334,880	647,508
1942	417,784	784,496
1943	415,099	776,386
1944	295,000	530,000
1945	76,515	128,784
1946	91,181	352,826
1947	305,092	587,340
1949	427,976	849,000
1952	636,332	1,305,016

#### 6. Coal and Electric Power Production.

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a. Year	Total Coal Production in Thousand Tons	Calories	Electric Power Production in Million Kw.-hs.
1938	9,350	4,272	1,173
1943	11,515	4,100	1,832
1945	4,186	3,850	684
1946	6,224	3,863	?
1947	?	3,960	1,408
1949	11,844	3,993	2,200
1950	13,300	3,897	2,600
1951	15,300	3,805	3,112
1952	18,500	3,720	3,680

b. The foregoing table shows a definite increase in electric power production in face of a substantial decline in the caloric value of the coal mined. The three principal groups of coal consumers are (annual consumption appended): electric power production, 3,800,000 tons; ferrous metallurgy (in addition to coke which must be imported), 2,100,000 tons; and the railroads, 2,000,000 tons.

c. The following list includes all Hungarian electric power plants in operation, with the exception of smaller plants serving certain industrial establishments. The figures indicate actual output capacities:

Location of Plant	Actual Capacity in 1,000 Kilowatts
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1.) Power Plants in Operation Before 1950.

Budapest-Kelenföld	110
Bánhid	66
Tatabánya	60
Dorog	20
Salgótarján	15
Barcika	4.5
Ajka	40
Várpalota	12
Pécs industrial region	17
Municipal power plants	30
Hydro-electric power plants	<u>10</u>
Total	384.5

2.) Power Plants Completed by the End of 1950.

Matra Mountain region	128
Mátyás Rákosi Works, Csepel	15
Komló	7.5
Diósgyőr	6.5
Ózd	9
Inota (will be in full capacity operation by the end of 1953)	<u>160</u>
Total	326

3.) Power Plants Under Construction.

Sztalinváros	60
Tisza-lök	10
Kazincbarcika	<u>200</u>
Total	270
Grand Total	980 kw.

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7. Analysis of the Foregoing Data.

- a. Production of coal, the basic raw material of electric power, was doubled between 1938 and 1952. This result, however, could only be achieved by lowering the caloric value by 10 percent. For this reason, coal production was actually increased by only 90 percent. On the other hand, electric power output increased from 1,113,000,000 to 3,680,000,000 kilowatt-hours, that is, triple the original amount.
- b. By disregarding the decline in the quality of coal, and assuming that one kilowatt-hour of electric power can be produced by firing one kilogram of coal of 4,000 calories (which is not entirely accurate, because Budapest-Kelenfold, for example, requires 4,600 calories to produce one kilowatt-hour), it will be seen that, in 1938, 1,113,000 tons of coal, or 11.9 percent of the annual production, were used for electric power production. In 1952, a total of 3,680,000 tons, or 19.68 percent of the annual coal production, were used for the same purpose.
- c. The combined iron and steel production doubled between 1938 and 1952. In 1938, iron and steel production consumed one million tons of coal and 180 million kilowatt-hours of electric power.
- d. As regards alumina production, coal requirements increased from 80,000 tons to 212,500 tons, that is, by 265 percent as against an increase of only 90 percent in coal output.
- e. Electric power consumption by the aluminum industry rose from 37,900,000 kilowatt-hours to 628,900,000 kilowatt-hours, or by 1,659 percent. This industry alone consumes 17.1 percent of the total annual electric power production of Hungary.
- f. From the foregoing it appears that ferrous metallurgy and the aluminum industry are consuming increasing quantities of energy (coal and electric power), while the production of energy fails to keep abreast of these requirements. It is believed that this is the main reason for the failure of the Five-Year Plan. Modifications in the plan had to be improvised from day to day, to maintain a fictitious equilibrium to the detriment of other branches of industry. This trend will become even more pronounced in the future. Energy requirements will continue to increase due to the enlargement of the Ajka aluminum smelting establishment and the Inota and Sztalinvaros projects.
- g. On the other hand, a further increase in coal mining appears impossible; also Hungary's hydro-electric power possibilities are limited. Consequently, it may be expected that, unless Hungary can find a way to import coal from abroad, an increasing number of industrial projects of secondary importance will be scrapped in the future.
- h. Petroleum, as a source of energy, has not been discussed in this analysis, because practically all of Hungary's petroleum production is exported to the USSR.

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